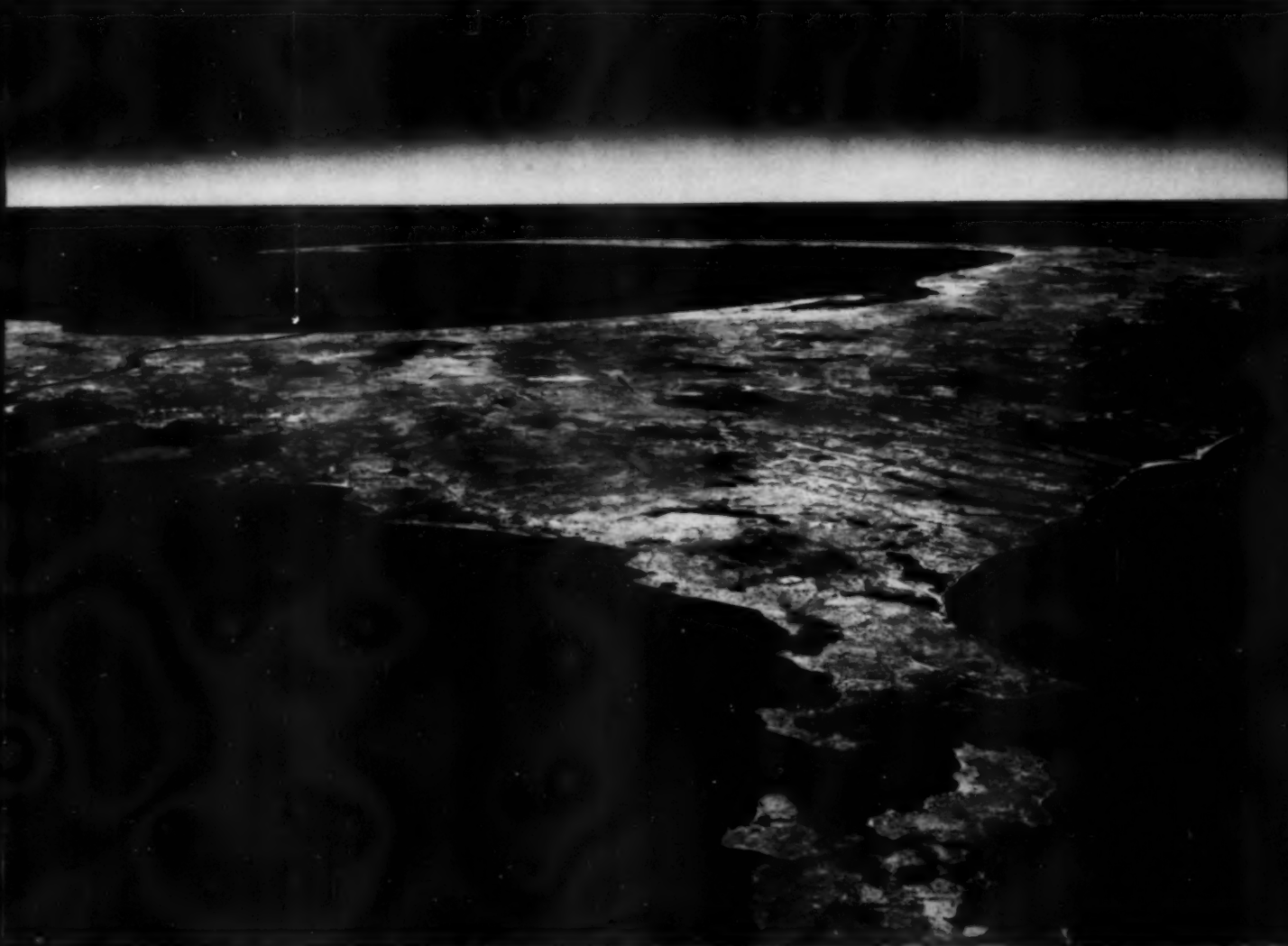


NATIONAL PARKS Magazine



Cape Cod, Massachusetts:
Relic of the Continental Ice

May 1961

The Editorial Page

On Enlarging Rainbow Bridge National Monument

WE ARE GREATLY and favorably impressed by the vigor and originality of Interior Secretary Udall's approach to national park problems. We are glad that he has suggested the possibility of enlarging Rainbow Bridge National Monument and perhaps making it a national park, because there can be little doubt of the magnificence of this area, even aside from the beauty of the bridge itself. We are also happy that the Secretary is leading a survey party into the area to look at the situation on the ground and consider possible new boundaries. This is the right way to get at park problems, by foot, horse, or helicopter, not by swivel chair.

But we are troubled by one aspect of the Rainbow Bridge problem which the Secretary should have clearly in mind: the enlargement of the Monument, unless integrated with effective plans to protect it as required by law against the reservoir which will form behind Glen Canyon Dam, might have the incidental though undesired effect of defeating protection.

At present, the sites of the proposed protective works on Bridge Creek, including the diversion dam above the bridge and the barrier dam below the bridge, at what has been called Site B, are outside the monument. It is difficult to see how the monument could be enlarged without including these sites, particularly that of the diversion dam. But if the monument were enlarged to include these sites, the law would prevent construction of protective works there. It will be recalled that the Colorado River Storage Act states that it is the intention of Congress that no dam or reservoir in the Upper Colorado River system shall be within any national park or monument.

It is possible, on the other hand, to enlarge the monument and provide for a barrier dam on Aztec Creek, at what has been known as Site C. The order enlarging the monument could exclude the dam site, the area of the pool above the dam, and the canyon below the dam, leaving them in the Glen Canyon Recreation Area.

The record of the request for appropriations for protective works made last year would seem to confine construction to the Bridge Creek sites. Enlargement would preclude such construction, and thus defeat the Secretary's efforts to comply with the mandate contained in the Act which requires him to take adequate protective measures to preclude impairment of the monument. If the monument is to be enlarged, therefore, a rapid reconsideration of the feasibility and cost of construction on Aztec Creek is in order. There is some reason to think that the expense and difficulties may not be so great as has been supposed.

Many conservationists have supported protection on Bridge Creek only because the Department recommended it, and would be happy to see a shift to Aztec Creek. Indeed, the entire conservation movement would probably unite behind such a proposal.

This Association has recommended stabilization of the reservoir at Elevation 3606, the present monument boundary, but has emphasized the necessity for protection by one means or another, stabilization or construction. If the monument is to be enlarged downstream, stabilization becomes increasingly difficult, and the choices appear to narrow down to construction on Aztec Creek.

As part of a positive project for a big monument, the Aztec Creek plan might be attractive to all Americans who believe that the good faith of Congress is involved in protecting the monument against any invasion whatsoever by the rising waters of Lake Powell.—A.W.S.

Storm Again Over Yosemite National Park

STORM CLOUDS ARE gathering again over Yosemite.

The State of California is planning the construction of two four-lane highways leading directly to Park boundaries, one at the Leevining entrance at the eastern boundary of the Park, and the other at the Big Oak Flat entrance at the western boundary of the Park. No doubt the Federal contribution in

both cases will be very large.

Little divination is needed to predict that if and when these roads are completed, a hue and cry will be raised to connect them by widening and double-tracking the New Tioga Road through Yosemite Park. This road has already been built to standards which we consider excessively fast and wide. A great deal of damage has already been done in the Park by this construction, and if there is to be more of it, it will be real devastation.

Interior Secretary Udall has recently stated publicly that the highway builders ought to steer clear of the national parks and go around them. We commend him on this forthright stand.

We feel sure that the Secretary realizes that when the big roads are pointed directly at a park from both sides, the highway builders have no intention of steering clear of the park, but intend to go right through it.

A Management Problem

It seems to us that this is a problem in the orderly management of the affairs of the Federal Government. We have two departments here, the Department of the Interior, with its National Park Service, and the Department of Commerce, with its Bureau of Public Roads, working at loggerheads. This is not a problem which can be passed over to Congress; it is not a legislative problem, but an administrative one.

President Kennedy has shown great breadth of view in recommending that the Departments of Agriculture and Interior endeavor to reconcile certain of their long-standing disagreements involving public lands. A similar effort at reconciliation should be undertaken between the Departments of Interior and Commerce as to roads.

Reckless road-building programs are a spendthrift waste of public funds and an intolerable burden on the tax-paying public, particularly when the money is needed for the acquisition of new parks and their better management and protection. The Bureau of Public Roads should be cooperating with the National Park Service to protect the parks, not destroy them. A strong Executive will see to it, if we are not mistaken, that these agencies get together promptly in the public interest.

—A.W.S.

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NATIONAL PARKS Magazine

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Paul M. Tilden, Editor

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THE MAY FRONT COVER PHOTOGRAPH

From an aerial position southwest of Woods Hole, the camera almost completely encompasses the graceful reach of Cape Cod, from the Cape Canal, left, to the Great Outer Beach and the open Atlantic in the far background. Showing at the very bottom of photograph is Nausahon Island. The narrow estuaries and series of baymouth sandbars (right, middle foreground) lie between the towns of Falmouth and Great Neck.

A Laurence Lowry Aerial Photograph

THE NATIONAL PARKS AND YOU

Few people realize that ever since the first national parks and monuments were established, various commercial interests have been trying to invade them for personal gain. The national parks and monuments were not intended for such purposes. They are established as inviolate nature sanctuaries to preserve permanently outstanding examples of the once primeval continent, with no marring of landscapes except for reasonable access by road and trail, and facilities for visitor comfort. The Association, since its founding in 1919, has worked to create an ever-growing informed public on this matter in defense of the parks.

The Board of Trustees urges you to help protect this magnificent national heritage by joining forces with the Association now. As a member you will be kept informed, through NATIONAL PARKS MAGAZINE, on current threats and other park matters.

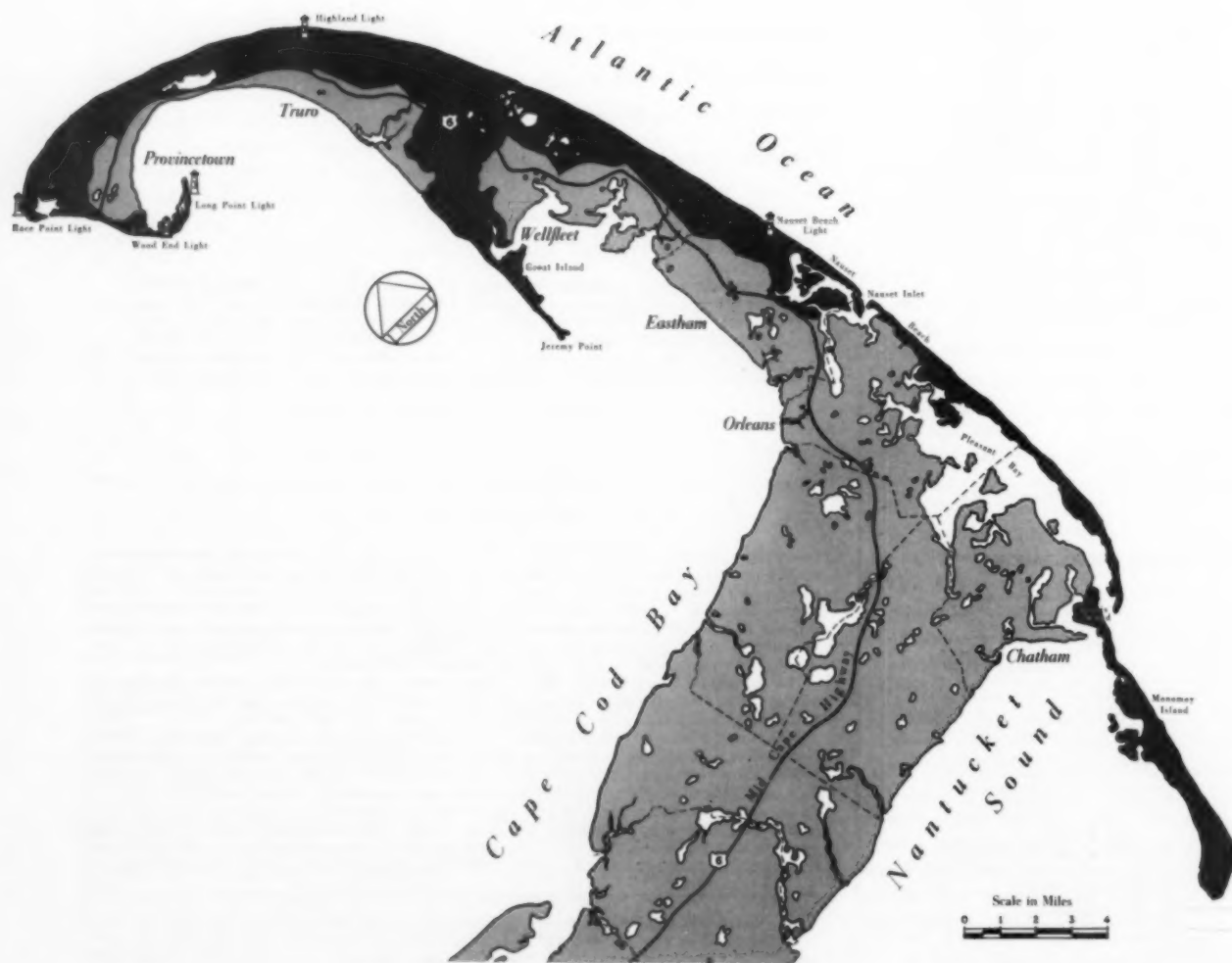
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The year 1961 may sound the

Last Call for a Cape Cod Seashore

By Lewis A. Carter



FIRST VIEWED CAPE COD's Great Outer Beach early in the summer of 1945, while I was in Chatham, Massachusetts, on a short leave from the naval service. Here, the beach is a mere strip of sand separated from Cape Cod by Pleasant Bay, which I sailed across on the wings of a fresh breeze. It was a world of surf that thundered in my ears; of towering white curtains of spray; and of trembling sand. To the south was the end of the beach and the open ocean, while to the north the roaring breakers rolled endlessly on the shore.

After the war, I found another aspect of the beach from the summit of the high bank in the town of Eastham—a scene once described by Henry Beston as: "... the immense and empty plain of ocean which first seizes the imagination, the ocean seen as one of the splendors of earth ..."

Then, again, on a wintry December day in 1945, I stood on the bayberry barrens of Truro and looked to the great dunes marching northward at the other end of the Cape. Within eyesight of these three viewpoints lies the entire forty-three miles of the Atlantic shoreline now being considered as the site for a national seashore park.

* * * * *

For a number of years the National Park Service, in common with many conservation organizations, has been deeply concerned with the apparent lack of public seashore areas along the Atlantic and Gulf coasts. A survey of the entire 3700 miles of coast between Maine and Mexico was begun in 1953; and in June, 1955, the Service published a report entitled *Our Vanishing*

Shoreline. The survey found that nearly eighty-five percent of the Atlantic and Gulf shorelines was not available to the public because of existing or projected private and commercial developments. Further, the Service named the outer beach area of Cape Cod as the outstanding shoreline of the North Atlantic, and one of four such areas considered worthy of national preservation.

A detailed two-year study of Cape Cod followed the first report, and in 1959 the Park Service introduced a general land-use plan for the area, with suggested boundaries for a national seashore park. On September 3, 1959, legislation was introduced in the United States Senate by President Kennedy—then a Senator—who, with Senator Leverett Saltonstall, wrote the proposed legislation calling for the establishment of a Cape Cod National Seashore Park. A parallel bill was introduced in the House of Representatives by Hastings Keith of the Ninth Congressional District of Massachusetts.

Solving Some Problems

The proposed bills followed earlier attempts at such legislation by Massachusetts Congressmen Philbin, O'Neill and Boland, but contained several features that were aimed at solving the serious problems bound to arise in the creation of a nationally preserved area in a long-settled region like Cape Cod. These bills died in committees at the end of the 86th Congress.

New bills which retain some of the features of the 1959 bills have now been introduced into the 87th Congress. Both versions of the present Cape Cod bills—the Saltonstall-Smith S. 857 and the Keith H.R. 989—through zoning arrangements, consider homeowners and the protection of their property within the park. The bills propose direct federal payments to towns to make good the loss of taxes because of the withdrawal of their lands. Shellfishing is regulated by the towns, subject to the fishery laws of the Commonwealth. Hunting, provision for which has aroused some controversy among conservationists, may be permitted subject to regulation by the Secretary of the Interior in consultation with State officials. In the case of the Keith bill, a provision for the eventual growth of towns returns ten percent of privately-

owned land in the park to the towns upon their request. These, and a number of other features, have been designed to fit a national seashore park into the long-established life of the Cape.

The proposed national seashore takes in the entire Atlantic shoreline from Race Point in Provincetown on the north, to the end of the beach in Chatham on the south, plus Morris and Monomoy Islands. (The latter is at present a national wildlife refuge, under the jurisdiction of the Fish and Wildlife Service, and some conservationists feel that it should remain so.) The upper, or northern part of the beach includes an inland strip along the thirty-five mile stretch from Provincetown to Nauset Inlet. This strip ranges from a half-mile in depth to its greatest width of several miles in the Truro and Wellfleet sections that cross the neck of the Cape from the ocean to Cape Cod Bay. On the bay side, Great Island and adjacent areas are included. The proposed preservation would amount to about 29,000 acres of land.

Among the 29,000 acres is included a 3800-acre tract known as the "Province Lands" in the town of Provincetown. The Commonwealth of Massachusetts, which has held title to this tract from earliest colonial days, also holds title to a thousand acres of unspoiled land set aside in Truro as the Pilgrim Springs State Park, which would fall into the new park. Another occupant of the proposed park land is the Federal government, which uses several small parcels along the beach for Coast Guard and Air Force installations, and one large tract of 1600 acres at a coast artillery station, Camp Wellfleet.

The Area Defined

The proposed national seashore lies in the towns of Provincetown, Truro, Wellfleet, Eastham, Orleans, and Chatham. All these communities own landings and beaches along the outer side of the Cape, the largest of which is the six-mile Orleans town beach, located on the thin barrier extending from Orleans to Chatham.

In Provincetown and Truro lie eight square miles of sand dunes that are among the highest and best stabilized on the Atlantic Coast. The dunes are flung in a pattern of miniature mountain ranges and valleys, and support a

The dark areas of the map on the page opposite outline the parts of the Outer Cape that would be included in the projected Cape Cod National Seashore as proposed by the Saltonstall-Smith bill introduced in the Senate early in 1961. Monomoy Island, in the lower right hand corner of the map, is presently administered by the Fish and Wildlife Service as a National Wildlife Refuge. Within the proposed seashore are several State- or federally-owned parcels.

vegetative cover that includes bayberry bushes, hog cranberry (bearberry), beach plum, grasses, pitch pine and other shrubs and trees. At Highland Light in Truro a high bank rises sheer above the outer beach and continues south for nearly twenty miles, without any major break, to Nauset Inlet. Its highest point is 175 feet above the ocean.

This plateau is one of the most unusual features of the Cape Cod area. On it flourishes a growth of pine woods, and on it also lie—mostly in the towns of Truro and Wellfleet—some twenty fresh-water ponds, many of which are very close to the beach. The first real break in the beach, from north to south, is in the vast salt marshes of Nauset Inlet. From this point to its termination in the town of Chatham, Nauset Beach stretches its narrow length for a distance of more than five miles.

Floral and Faunal Riches

Cape Cod possesses a remarkable wealth of plant, animal and marine life, aside from its splendid esthetic qualities; it is an area of the greatest scientific importance, geologically, botanically, and in a number of other respects. It is the habitat or resting grounds for many species of land and aquatic birds; on Monomoy Island, off the southern tip of Nauset Beach, more than three hundred species of birds have been

Mr. Carter, a Yale University graduate, has been a member of the Massachusetts Department of Natural Resources since 1953. He is the author of many articles on the subject of resource conservation.

recorded. Inhabiting the tidal zones, marshes and coastal waters are another three hundred or more species of marine organisms; the outer beach is considered to be one of the best salt water sports-fishing localities of the nation, and the surf abounds with striped bass, bluefish, tuna, pollock and mackerel.

Thousands of acres of the great plateau of the Cape provide feeding and cover grounds for deer, smaller mammals, and birds, while the extensive marshes of Nauset Inlet and Pleasant Bay are the resting and feeding grounds for great flocks of ducks and other migratory waterfowl.

The Atlantic face of Cape Cod, exposed to the harsh and relentless pounding of the open sea, undergoes extraordinary erosion, especially from hurricane-whipped storm waves that often batter its fragile structure. There are no rocks to bolster its sand and clay, the surface of which is held together only by beach grass and strongly-holding shrub and tree roots. Highland Light in Truro has been moved inland four

times because of the undercutting of its foundations by ocean action. (In 1958, a storm scooped large craters out of the asphalt parking areas at both Coast Guard and Nauset Lights as easily as a child cuts out a sand-pie. The dunes and banks next to these parking areas came through the storm unchanged, testimony to the remarkable holding quality of the vegetation of the Cape.) As the Atlantic eats into the midriff of the outer beach, sand and clay are carried in the direction of Provincetown to the north and Monomoy to the south, there to extend slowly the "flying wings" of beach that have been formed over a long period.

Cape Geologically Young

Geologically speaking, Cape Cod, along with the Nantucket and Elizabeth Islands, is quite young. The Pleistocene ice, scouring and gouging the ancient rocks of Canada and New England to the north, brought a vast supply of sand and clay to its southern terminus and dropped it along an approximate line drawn from Nantucket Shoals, across the length of Long Island and not far south of New York City. Cape Cod represents a great dumping ground for the rock debris of the glacial ice, sorted and shifted about by the waves of the Atlantic, and resting at considerable depth on a foundation of the ancient rocks of New England. The many fresh-

From a hill in the town of Truro, the visitor may watch the open Atlantic wash the wave-cut cliff face of a glacial moraine, the sand and clay of which support a fine growth of heathland grasses. During winterstorms, the sea along these cliffs churns and boils like a vast white cauldron.

National Park Service



water ponds that dot the landscape of the Cape are glacial "kettle holes," formed by the melting of ice masses within the cover of rock debris after the retreat of the main ice body.

* * * * *

Since the Department of the Interior proposal in 1955 to preserve national seashore areas, subdivision, construction and commercial development have been on the increase in Cape Cod. The introduction of bills in Congress in 1959 tended to accelerate the development process. Recently, a hundred-acre tract in Truro was sold and subdivided for residential use. New houses have sprung up around the ponds in Wellfleet and Truro, and along many portions of land directly bordering upon the outer beach. New motels, filling stations, restaurants and other commercial ventures have mushroomed along U. S. Route 6, the mid-Cape highway. Unless the whole park area is to be overrun, congressional action must come very soon.

Early Action Needed

There has been strong opposition to the park on the part of special local interests. However, at recent public hearings in Eastham, conducted by a House Interior and Insular Affairs subcommittee, both opponents and proponents seemed in agreement that there should be some sort of national preservation to save the great natural and historic values of the outer beach area. They also agreed that any delay in decision would hurt the towns concerned, the real estate and construction businesses, and the general life of the Cape.

Also on the plus side is Secretary of the Interior Udall's recent recommendation for early legislation. "Unless action is taken in the near or immediate future to acquire and preserve lands at Cape Cod for public enjoyment," he said, "it seems quite evident that the Cape's traditional atmosphere and character will vanish under construction activity now under way there."

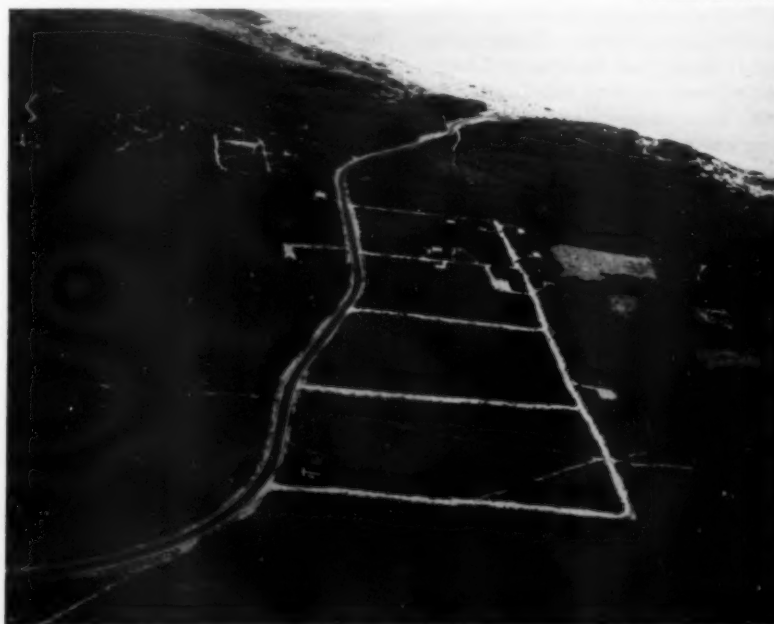
There appears to be room for compromise and eventual agreement between the National Park Service proposal for preservation, bills calling for creation of the park, and the reasonable demands of the towns of Lower Cape Cod. But the "last call" for a splendid national pleasuring ground may be sounding in 1961! ■



National Park Service

In the northern part of the proposed seashore are some eight square miles of fine dunelands, of which the photograph above, looking across Pilgrim Lake in Truro, is representative. The pond and marshland plant and animal life of the Cape is rich and varied, as is that of the Cape as a whole. Below: the harsh angles of subdivision roadbuilding in the town of Truro spell out the future of a Cape unprotected.

National Park Service





Toothwort, or Crinkleroot

Pioneer Americans made good use of

Nature's Untilled

MANY PLANTS COMMON TO OUR woods, fields and marshes have in past times provided food staples for the American Indian as well as for the white pioneers of this nation. In our modern day of agriculture and farm marketing, we have forgotten the one-time importance of many of the natural food plants of the field and forest. Much of the early plant lore is still available, however, in the diaries of missionaries, pioneer explorers, and the reports of naturalists who accompanied military or fur-trading expeditions.

By tradition, the American Indian has been regarded as a mighty hunter, and it is true that he depended largely on fish and game to supply his basic needs for food and clothing. Insofar as practicable, however, he supplemented his diet of meat with roots, seeds, greens, and the fruits of native plants. Of course, certain tribes that inhabited areas where soil and climate were favorable regularly planted fields of corn, squash, pumpkins, gourds, and beans; but we are concerned here with the Indians' uses of wild plants, and not those that had been partially domesticated.

In Michigan, Wisconsin and Minnesota, wild rice was as important to the Chippewa, Menominee, Ottawa, and Sioux as was wapato—the duck potato—to the Indians of the Pacific Northwest.

Virginia tuckaho, also called arrow arum, which grows in shallow water

from Maine to Florida and west to Michigan, was an important item of human diet. This plant superficially resembles arrowhead, but there are marked differences in the size and shape of the leaves. The edible part is the root stock, which grows to six inches in diameter and weighs from five to six pounds. It is acrid and poisonous when raw, but wholesome after drying and cooking. According to Captain John Smith in 1626 (and the botanist Peter Kalm in 1749) the Indians prepared the arrow arum in their primitive fireless cookers, which consisted of pits lined with hot stones. The tubers were wrapped in leaves and placed on heated rocks; more hot rocks were placed on top of the roots, and earth piled over all. After twenty-four hours, the tubers would be thoroughly cooked and palatable. Sometimes the hot stones were omitted, and a great fire kept burning above the earth-covered roots for an equal time.

The rootstocks of the American lotus were similarly utilized by the Indians of the Central States, from Canada to Louisiana. This plant is a typical water-lily, with pale-yellow flowers and circular leaves up to two feet in diameter. It belongs, however, to a different genus than that of the common white and yellow water-lilies of the eastern United States. The young leaves were sometimes used as spinach, and the dried seeds were often roasted.

Even the fiery corns of the Jack-in-



The Ground Nut

the-Pulpit were eaten by the Seneca Indians, but only after being dried and cooked. The starch content of the dried roots was ground into flour and used in bread. Boiling or leaching with water does not destroy the chemical compounds to which the acrid or burning properties are attributed. Prolonged exposure to air, however, does destroy them. Bread made from the dry flour is said to have a distinct cocoa flavor.

The Eastern Indians also made bread from the dried roots of the skunk cabbage. If one can get past the smell, the young tender leaves make quite acceptable greens. They should be cooked in several waters, however, to which a

Gardens

By C. Meacham

Illustrations by the Author



Wild Ginger

pinch of soda has been added, and served with vinegar, or butter.

At various times and in many places man has been in direct competition with muskrats for the rootstocks of the ubiquitous cattail of marshy places. According to Frederick Coville, an eminent ethnobotanist, it was used by Western Indians as both a vegetable and a salad, and in the eighteenth century it was regularly eaten by "poor whites" in Virginia. The young root-stalks have a core of almost pure starch, and a sweetish flavor. Flour prepared from cattail roots can be made into bread or used in puddings in place of corn starch. Cossacks in the valley of Russia's Don River eat the central axis of the plants as eagerly as they might a stick of licorice.

The upland woods and meadows, as well as the marshlands, abounded in edible plants used regularly by both Indians and white men before the wilderness was won. East of the Mississippi, the ground nut—a perennial leguminous vine bearing brownish-purple clover-like blossoms—was one of the more important plants in nature's untilled garden, and one whose tubers were said to be as palatable and nutritious as Irish potatoes. Backwoods-men depended on the ground nut to ward off hunger, and Asa Gray, the great botanist, speculated that it would have been the first cultivated tuber if civilization had started in the New World instead of the Old.

An item of food that was of major importance to our Indians, particularly the Southwestern tribes, was the acorn of several species of oaks. Most acorns contain tannic acid compounds that make them bitter and "puckery," but the Indians remove this objectionable quality by leaching them. The importance of acorn food to the Southwestern tribes is attested by the fact that property rights to specific oak groves have remained vested in individual tribes or families through many generations.

Large quantities of both red- and white-oak acorns were collected by the Potawatomie of Michigan and Wisconsin, but their method of removing the tannic acid differed from that of the Western Indians. After removal of the shells, the acorns were soaked in a lye solution made from wood ashes. Then the lye was removed by repeated washing in hot and cold water. After this treatment the nuts were kept in dry storage and ground in a stone mortar as needed. Such acorn flour was usually used to make gruel rather than bread.

The root of wild ginger was used to season other foods. It was supposed to remove the muddy taste from freshwater fish and make other meats more digestible. However, the Indians leached the roots in lye water and washed them repeatedly before adding them to stew or boiled fish.

The Jerusalem artichoke, a sunflower that was much more common in the prairie and plains States than in the eastern States, was known and used by the Potawatomie in southwestern Michigan. This plant produces tubers which somewhat resemble small potatoes. The tubers were so popular with the French *voyageurs* that specimens were sent back to France in the seventeenth century, and thereafter the Jerusalem artichoke was given space in European vegetable gardens.

In the fall, the Indians also collected the roots of the toothwort, a member of the mustard family, after they had



Jack-in-the-pulpit; Indian Turnip



Arrow Arum



Jerusalem Artichoke

matured. They have a pungent, acrid taste when freshly dug, but this is removed by covering them to exclude the air for a few days. After they have fermented they are sweet and palatable. The Ojibwe cooked them with corn or beans, and with venison. According to Huron H. Smith, who was an authority on the ethnobotany of the Potawatomie and Ojibwe: "Besides being a fine food they are good medicine for the stomach."

The Ojibwe and Potawatomie utilized as greens the tender shoots, leaves and flowers of several plants to thicken soups and stews. Among these plants were the bracken, dandelion, wild onion, marsh marigold, and certain lichens. *Sticta glomulifera* occurred among the latter group. The Ojibwe collected these lichens from the trunks of old white pine trees, and boiled them

until they coagulated like scrambled eggs. This was an ancient and favorite dish called *wakun* by the Indians, because it had the flavor of fish roe.

The climbing bittersweet, surprisingly enough, was an emergency food plant of the Potawatomie; when it was necessary, they ate the inner bark of the stem. It cannot be recommended as a gourmet's entree, but it will sustain life when nothing better is obtainable. It is said that Indians cut the stems to suitable lengths, and boiled them until the bark could be easily separated from the wood. The cooked bark, which is spongy and has a bittersweet taste, might be eaten immediately; or dried, smoked, and reduced to flour for later use.

Pierre Radisson, the seventeenth century fur trader and explorer who must have been hard pressed for food on

numerous occasions, was first to call attention to the food value of bittersweet: "The greatest subsistence that we can have is of rind tree, which grows like ivie about the trees, but to swallow it, we cut the stick some two feet long, tying it in faggot, and boyle it, and when it boyles one hour or two ye rind or skin comes off with ease, which we take and drie it in the smoake and then reduce it to powder betwixt two graine stoan, and putting the kettle with some water upon the fire, we make it a kind of broath, which nourished us, but became thirstie and drier than the wood wee ate."

Despite the pungencies and peculiarities of nature's wildland produce, however, it served both red and white man well in time of need, and many were the lives saved by fortunate encounters with nature's untilled gardens. ■

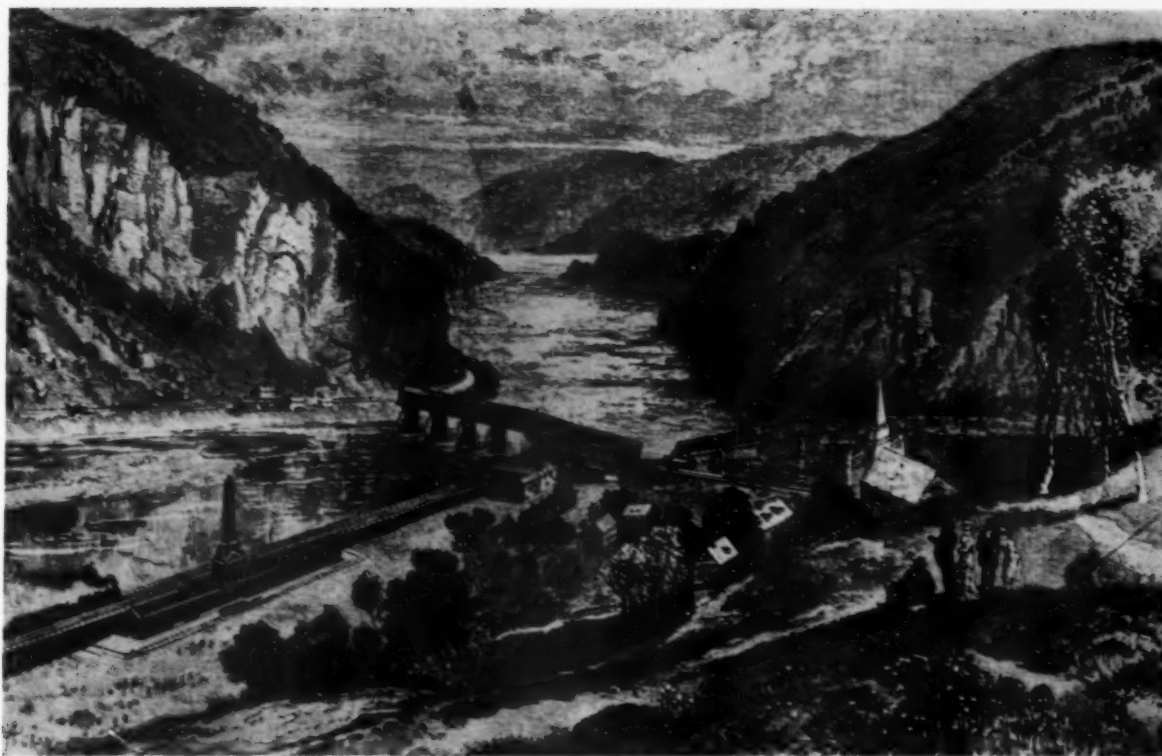
MAY

*May has a music all her own,
Carving yellow flowers everywhere
And laughing dots of sunshine into your face.
May has a way of being ridiculously serious.*

*May is like some great unfinished symphony,
A bird that sings a little while,
An Irish girl with a wild heart,
A pair of golden dancing shoes.*

*I expect green miracles of her,
Inside the grass, upon the trees—
And strangely she always makes them happen
Waving her wand into the beautiful spring.*

—MARION SCHOEERLEIN



The illustration above, from an engraving made during the middle of the past century, shows Maryland Heights at the left, and the Chesapeake and Ohio Canal skirting its base near river level. Village of Harpers Ferry in the foreground.

In Civil War days, Maryland Heights was

The Key to Harpers Ferry

By Philip R. Smith, Jr.

THE HILLS OF WESTERN MARYLAND rise to a height of two thousand feet at Maryland Heights, which towers over the junction of the Shenandoah and Potomac Rivers across from the historic town of Harpers Ferry, West Virginia—now maintained as a national monument by the National Park Service. Few but hikers and hunters have visited the summit of the Heights in the hundred-odd years since the end of the Civil War; the defenses erected by Union forces there during the war

have been allowed to stand undisturbed by man.

Here and there on the mountainside are gun emplacements, bunkers, and rifle pits, now scarcely distinguishable from the mountain except when the trees are bare of foliage. Here stands

Mr. Smith, a former research historian at Harpers Ferry National Monument, is presently a resident of Annandale, Va.

the main link in the Union defenses on Maryland Heights, the great stone fort now overgrown with bushes and trees, its stone ramparts still visible. The fort, together with a naval gun battery farther down the mountain, and the earthen Fort Duncan a short distance up the Potomac, commanded the approaches to Harpers Ferry. There is a magnificent view from the fort, with the Potomac River below winding its way toward Washington. On a clear day it is possible to see the Washington



Courtesy Baltimore and Ohio Railroad

In this modern picture, taken from a point on the Virginia shore, the Shenandoah River (at left) joins the Potomac at Harpers Ferry. Maryland Heights rises over Potomac at right.

Monument, sixty-five miles to the southeast.

Not far from the great stone fort is the ruin of the signal tower that once stood on the summit of the Heights. The tower was one of several that linked Washington, D.C. with mountain-girt Harpers Ferry.

The Heights surrounding the famous town of Harpers Ferry have played an important role in its history. On the West Virginia side of the town is Bolivar Heights; on the Virginia side Loudon Heights; but it was on the Maryland side, at Maryland Heights, that the most extensive fortifications were erected during the Civil War. Historians at the national monument have searched Civil War records to discover the exact role of Maryland Heights in the battles fought at Harpers Ferry.

Lee Crosses Potomac

It was at Maryland Heights that General Lee's crossing of the Potomac, just before the battle of Antietam, was first reported by Union signalmen, who then relayed the news to Washington. The stone fort and other gun positions there were constructed to protect Harpers Ferry, a key unit in Union communications and supply lines.

The strategic value of Maryland Heights was realized early in the war by both sides; but Lee, not wishing to antagonize Maryland, did not erect any elaborate fortification on the mountain. The Chesapeake and Ohio Canal, the Baltimore and Ohio Railroad, and the Winchester and Potomac Railroad all passed through or by Harpers Ferry, and their loss or disruption would have greatly hampered the Union Armies; except for a log stockade built by Kentucky troops, however, Lee's orders to refrain from intruding on Maryland soil were followed.

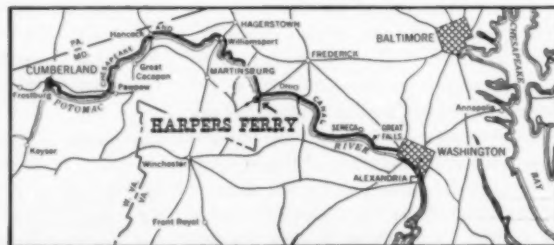
Harpers Ferry was an important position. The Potomac River was relatively shallow there, and could easily be forded. Whoever held Maryland

Heights held Harpers Ferry, since guns mounted on the Heights could fire down into the town and surrounding countryside. Although no major actions took place on Maryland Heights, there were a number of sharp skirmishes on the Heights or in the immediate vicinity.

Washington Visited Heights

The history of Maryland Heights goes back much farther than the Civil War. George Washington stood on the Heights when he came to Harpers Ferry to supervise the construction, by the Potomac Company, of a canal around the rapids. The narrow stretch of land between the Potomac and the base of the Heights was bitterly fought over by the Chesapeake and Ohio Canal Com-

The village of Harpers Ferry, rich in history, lies at the junction of the Shenandoah and the Potomac Rivers. It was strategically important during Civil War activities.



Adapted from National Park Service map

Ruins of the government gun factory at Harpers Ferry are shown in the illustration at right, taken during the Civil War. Gun factory was destroyed to prevent capture by Confederates.



pany and the Baltimore and Ohio Railroad Company. Both sought the right-of-way to gain the advantage in their race to the Ohio. A compromise allowed both the right-of-way. In later years, the Baltimore and Ohio Railroad constructed a tunnel through the Heights to facilitate bridging the river. The canal was abandoned, but is now being restored by the National Park Service.

In 1859, before the outbreak of the Civil War, John Brown and his raiders hid for several weeks at the Kennedy farm, still standing today, just below Maryland Heights. On the night of October 16, 1859, Brown and his eighteen men marched through the darkness along the narrow road squeezed between the Chesapeake and Ohio Canal and the base of Maryland Heights crossed the railroad bridge into Harpers Ferry, and captured the United States armory and arsenal there.

(For this deed, and despite a plea that he was acting only in the cause of human liberty, Brown was tried for murder, treason, and conspiracy, and was hanged at Charles Town, West Virginia, on December 2 of the same year.)

A little more than a year later, at the dawn of the Civil War, a small squad

of Union soldiers escaped over the railroad bridge and up the canal road into Pennsylvania, after having burned the government arsenal at Harpers Ferry to prevent Confederates from taking armaments stored there. Again, just before the battle of Antietam, a force of more than a thousand Union cavalrymen escaped over the road just before the Ferry fell to Stonewall Jackson.

Today Maryland Heights holds as much appeal to the hiker and nature enthusiast as to the historian. The wildlife inhabiting the Heights ranges in size from squirrels to deer. The Heights can also claim the distinction of having the only wild mountain goats on the East Coast. About a hundred years ago, a number of domesticated goats escaped into the woods on the Heights; their offspring climb nimbly around the sheer rock face of the cliffs today. More than a hundred species of birds have been counted by Park naturalists and rangers at Harpers Ferry. The native growth of bushes and trees on the summit of the Heights has been augmented by apple and cherry trees that undoubtedly sprang from the pits of fruit eaten there by soldiers during the Civil War.

It is the hope of the National Park

Service that at some time in the future Maryland Heights will be incorporated into the Harpers Ferry National Monument. The Heights are presently accessible only by a rough trail and an old logging road, but when the Park Service acquires final title to the land a road will be constructed to the summit to enable visitors to drive to the top.

Today, vultures circle lazily in the sky above Maryland Heights. The sounds of gunfire that once echoed from the hills around the Ferry have been stilled for a century. The fort and gun emplacements stand hidden, and here and there, carved in the rocks on the mountain, are the names and units of soldiers that were stationed there during the Civil War, perhaps the only epitaph to men who lie in some unmarked grave. The great tumbled boulders and fallen trees on the mountainside around the fort give the impression of recent battle.

It is seldom that history is made in such a beautiful setting. One can readily agree with Thomas Jefferson, who said of the junction of the Potomac and Shenandoah Rivers just below Maryland Heights, that to see it was worth a trip across the Atlantic. ■

Your National Parks Association at Work

National Park Service Views On Game Management in Parks

[In the letter following, Director Conrad Wirth of the National Park Service outlines the Service's position regarding a statement of policy approved by the Board of Trustees of the National Parks Association at its semi-annual meeting in November, 1960, the text of which appeared in *National Parks Magazine* for January, 1961. The policy statement declared the Association's opposition to the opening of any primeval national park to public hunting.

The Association had inquired about the policy of the Service in this matter after the Service proposed to the Nevada Fish and Game Commissioners that public shooting be permitted in the proposed Great Basin National Park as a wildlife population control measure.

Because of space considerations, it has not been possible to print the complete text of Director Wirth's letter; the editor feels that the following excerpted paragraphs fairly reflect the views of the Service in the matter. *Editor.*]

February 20, 1961

MR. ANTHONY WAYNE SMITH
EXECUTIVE SECRETARY, NATIONAL PARKS ASSOCIATION
WASHINGTON, D.C.

Dear Mr. Smith:

I was very interested in your letter of January 24, which relates to one of the major problems in the National Park Service at the present time, and this is the control of surplus wildlife populations. . . .

In the first place, I do not think the problem should be discussed at all unless we have a clear understanding of terms. The use of the term "public hunting" or even "hunting" itself hardly fits the situation in the national parks. This is not due to the fact that hunting is not a means of control or that there has not been shooting in the parks for control purposes for a number of years. To the vast majority of people, however, the term "hunting" produces a concept involving the pursuit of wildlife as an outdoor sport to secure trophies and meat, and for the additional purpose of securing a maximum annual harvest of game animals. By contrast, the shooting that is done in the parks is a forced situation. It must be done to carry out the stated obligation of the Service to pass the parks on unimpaired for future generations. Very specifically, no program of shooting is being considered by this Service *except that involving reduction of surplus destructive populations*. Any consideration outside this limit is not authorized by law. The recreational hunting of wildlife is completely at variance with the purposes for which the national parks were established. . . .

The Legal Background

A review of the legal background establishes the fact that the National Park Service Act of 1916, Section 3, says the following about the authority which may be exercised in regard to this problem by the Secretary of the Interior: "He may also provide in his discretion for the destruction of such animals and of such plant life as may be detrimental to the use of any of said parks, monuments, or reservations." I think that under this provision it is within the authority and discretion of the Secretary to permit the control of surplus wildlife populations in the parks by public participation, if need be, in the reduction effort. Therefore, it can only be concluded that such a program would not be in conflict with Park Service law, although it would certainly fly in the face of tradition.

It appears to me that the most important and significant decision was made years ago by the Service when control by shooting by park personnel was authorized. This eliminated the inviolate sanctuary concept as far as specific problem populations were concerned. Conservationists, generally, on the basis of conclusive evidence which was presented to them, agreed on this point. However, to the rangers, animal reduction programs are disagreeable and time-consuming tasks. Rarely have we had adequate funds or manpower to carry them out. After many years of trial this method has not accomplished results on the scale required.

Consequently, the National Park Service recently has conducted

an extensive review of the current situation. The question to be answered is what can be done to make control operations more effective. The correct answer is essential in our mission to pass these areas on "unimpaired to future generations." We realize that when we permit a wildlife population to damage or destroy other parts of the natural complex, we are not meeting our responsibilities under our basic law.

We also have analyzed the objections which have been made by sincere and thinking people who ask that if these animals must be killed, why should not the public be called upon to participate and help control the situation. Limiting control work to park personnel has been justified chiefly on the premise that the operation could be more precisely controlled and the program could be more easily administered by so doing. However, those who have observed and studied the situation firmly believe that public participation can be controlled and limited to an adequate degree. Therefore, on the basis of practical results the latter method may be the most effective one to follow in some cases.

Over the years the concept of a complete refuge or sanctuary has been an important factor in the minds of many people in supporting the establishment of national parks. At times, this support has been decisive. However, there is considerable evidence that an important segment of the people and organizations who have traditionally supported us in the past will now vigorously oppose establishment of new national parks, and some who have been in opposition feel their position now is much stronger. Parallel to this is the fact that, not only as applied to the national parks but throughout the country generally, there has been a reversal of the public attitude towards game sanctuaries or game refuges. In many States they have been abolished completely and in others controlled hunts have been instigated to keep down the surplus populations.

This is the situation with which we are confronted at the present time, and I wonder if the Trustees of the National Parks Association were fully aware of all of these considerations when they passed their resolution. This is not a question of whether or not recreational hunting should be permitted in the national parks. I want to make this very clear. It is merely a question of a method for making needed population reductions. . . .

Fear of a Precedent

The great fear in the minds of many people we have talked to is that this will form a precedent and, as some have cried in alarm, might "open the gates to uncontrolled hunting" everywhere in the National Park System. We cannot agree with this because first, hunting *per se* is absolutely illegal in parks. We are talking about *reductions of surplus destructive populations only*. . . .

In connection with the Great Basin National Park project, we made a proposal which we felt might improve the situation without losing the control which is absolutely essential as far as we are concerned. Accordingly, Biologist Lowell Sumner, who is intimately acquainted with the problems of the Great Basin Park proposal, attended a meeting of the Nevada Fish and Game Commissioners in Las Vegas, which was also attended by representatives of the Federated Sportsmen of Nevada.

This is the specific idea that he submitted to them for consideration. "You have consistently emphasized in all previous discussions the need for a continuous program of deer management, with reduction carried out by the public. Accordingly, we offer for your consideration the following: 'Establishment of the park under provisions of law that would enable the Secretary to open a designated percentage of the park to deer management reduction by the public under regulations promulgated by him after consultation with the Nevada Fish and Game Department under which it would aid in such a management reduction program. The Secretary, who is ultimately responsible for the administration of the park, would retain over-all control of this management program.' If you are willing to support these proposals, the National Park Service will not oppose enabling legislation in the bill creating the park which will establish public shooting as a management tool, subject to over-all

(Continued on page 19)

The Association's Position Regarding Animal Population Control

MR. CONRAD L. WIRTH, DIRECTOR
NATIONAL PARK SERVICE
WASHINGTON 25, D.C.

March 21, 1961

Dear Mr. Wirth:

We appreciated your letter of February 20 about hunting and wildlife management in the parks.

The Trustees of the Association are conversant with the problem of habitat preservation and the management of wildlife populations in the parks, and had these factors clearly in mind when they adopted their statement in opposition to hunting in the parks last November. They are also conversant with the fact that the National Park Service in a number of situations has exercised the authority conferred on it by law to reduce such populations.

In their November statement the Trustees made a distinction between hunting and game management in the parks, and expressed the feeling that management problems are capable of solution "if sufficient effort, talent and resources are applied to the task." It is reasonably clear that the Trustees were drawing a distinction between hunting and the control of wildlife populations by Service personnel.

When your letter arrived, I sent copies to the Trustees and have received a number of answers from leaders of the Association which indicate that if it were necessary for the Trustees to make a formal pronouncement on this matter, they would adhere to the same distinction and would oppose hunting in the parks while, in all probability, recognizing the need for the management of game populations for purposes of habitat protection by Service personnel exclusively.

The problem was discussed at a meeting of the Executive Committee of the Association on March 10, 1961, where both the November statement and your letter to me were carefully considered, and the views expressed at the meeting were definitely in accord with the above.

Defining the Word "Hunting"

I think it would be fair to state that the Executive Committee placed all hunting in one category: public hunting, amateur hunting, hunting for sport or recreation, and hunting for trophies or meat; and it placed in another category activities related to the management of game populations and habitat preservation by the paid staff of the Service, or where absolutely necessary, by officially appointed deputies carefully chosen for their high qualifications of knowledge, skill, and responsibility, and working under the full control and direction of the permanent staff.

It is clear that the great majority of the Trustees of the Association would be firmly opposed to the adoption of any policy by the Service along the lines of the proposal advanced to the Nevada Commissioners and sportsmen.

The November statement also makes it clear that the Trustees as a body are convinced of the need for the establishment of new primeval national parks and monuments of full national park caliber, but that they would be strongly opposed to hunting in any of the above senses in any such parks or monuments.

I owe it to you in all frankness to say that the feeling in regard to this matter on the part of a number of our Trustees runs very high; it is not beyond possibility that if the Service were to institute policies of the kind suggested to the Nevada Commissioners and sportsmen, the Association might find it necessary to take the matter to court.

Wildlife Population Management

I would like to return to the problem of the management of wildlife populations. Most of the Trustees would feel, in my opinion, that this is a real problem in some localities and that skillful management is required under the fundamental principles of the National Park Act and other legislation basic to the National Park System.

There would be a predominant feeling, I believe, that the Association should cooperate fully with the Service in well-conceived methods for the management of wildlife populations by park per-

sonnel in the broad sense of that term used above.

Incidentally, there is some reason to believe that a number of these problems are not so difficult of solution as has been supposed. Mr. Olaus Murie, for example, has made some valuable suggestions about the management of the elk herd in Yellowstone, turning around the restoration of the migrations and hunting outside the park. We do not see why suggestions of this kind should not be more carefully considered.

A related problem is that of livestock grazing in some units of the System. A number of the Trustees feel that it is livestock grazing, rather than browsing by elk and deer, which is the main problem in some units. Part of a program of habitat preservation in the parks would be a more vigorous attack on the livestock grazing problem.

Another matter which you have not discussed is the restoration of larger populations of predators as a means of biological control of other wildlife populations. We are not unaware of the biological and political limitations of this approach, but we are of the opinion that a more extensive use can and should be made of it, because it is the wanton and stupid destruction of predators throughout the country which has created a large part of our wildlife management problems.

Confusion May Lead to Abuses

We agree with you that a clear understanding of terms is important. We find your statement of position confusing with respect to definitions, and feel that such confusion can only lead to abuses, perhaps unforeseen, but nonetheless dangerous. You are against what you refer to as *hunting per se*, against *public hunting*, apparently against *recreational hunting*. But you are in favor of *public shooting as a management tool* and *public participation in control programs*.

We have the impression that most public, recreational and amateur hunting is widely regarded as a wildlife management tool. Most game commissions, we would suppose, base their seasons and bag limits each year on what they consider proper for the maintenance of wildlife populations at proper levels. We fail to see the distinction between such operations outside the parks and the use of public shooting in the parks "as a management tool."

We realize that your proposal contemplates the retention of overall control by the Secretary of the Interior. Public participation would be subject to regulations promulgated by the Secretary. You provide also, however, for agreements with the game commissions whereby they will aid in reduction programs. These arrangements give great leeway in the direction of turning major responsibilities over to the game commissions for operation under State game laws, and we cannot consider such arrangements acceptable from our point of view.

On the other hand, the merit of consultation, not only with the game commissions, but with the Forest Service, and certainly the Fish and Wildlife Service, is quite obvious. Problems of managing many game populations extend throughout large geographic areas. We would assume that the Service now has authority to handle populations by means of its own personnel within the System, and that the other agencies have comparable authority outside the system. The Service should obviously seek the advice of these other agencies, and the programs of the various agencies should be meshed together in each area into an effective plan.

Imbalance in Park Programs

You suggest that the difficulties of habitat protection in the parks are so great that present personnel and facilities cannot cope with them. This comment raises another question which has troubled us for a long time: the imbalance between programs of park management, protection, interpretation, and research on one hand, and construction on the other. When about two and a half times as much money is being spent on construction as on management, protection, interpretation, and research, we think that part of the wildlife management problem may arise from the need to readjust such an imbalance. This comment is not an adverse criticism of the Service; we know you are giving careful thought to the problem.

One further thought: This Association cannot make a distinction in these matters between the existing Park System and possible new national parks or monuments of wilderness and primeval quality which have all qualifications for full national park or monument

(Continued on page 19)

Conservation News Briefs

National Watershed Congress Meets at Tucson

One of the outstanding yearly American natural resource conferences took place on the 17th, 18th and 19th of April in Tucson, Arizona, when delegates to the 8th National Watershed Congress gathered to discuss natural resource management and to review national watershed problems and progress. Sponsored by more than a score of the country's outstanding conservation, industrial, and agricultural organizations, the Watershed Congress explored watershed development, soil erosion, water runoff, and many related problems through talks and papers by State, federal and private organization representatives. The programs were supplemented by tours and exhibits.

The National Parks Association, which is one of the participating organizations of the Congress, was represented by Weldon F. Heald, well-known southwestern conservationist and member of the Association's board of trustees, and Joseph Wood Krutch, noted naturalist and author.

Parks and People—1960

Under the National Park Service's newly inaugurated uniform system for tabulating visitation, 72,288,000 persons made use of national park, monument, and other classified area facilities during 1960, according to a recent Park Service release. Based on the visitor counting system in use prior to 1960, the equivalent figure would have been 65,587,000, an increase of 4.8 percent over the 1959 record high of 62,812,000.

DATES and PLACES

April 30-May 6 National Youth Fitness Week.

May 12 Chicago Area National Parks Association membership meeting, 7 p.m., Henry Horner Park Field House, Chicago, Illinois.

May 13-15 Outdoor Education Conference, Glen Helen, Antioch College, Yellow Springs, Ohio.

May 15-16 "Water Pollution in the Great Lakes Area," DePaul University conference, Chicago, Illinois.

May 23 U.S. Forest Service hearings, 8:30 a.m., Sacajawea Hotel, La Grande, Oregon. (See p. 19.)

June 14-16 American Shore and Beach Preservation Association annual meeting, Sea Scape Motel, Ocean City, Maryland.

Under the new counting system, all park areas use the same criteria in determining total visitation, and the use of any park facilities—roads, for example—implies visitation to an area, even though the use is for business rather than recreational purposes. The new system will show a figure about 9.8 percent higher than the old, but will present a more accurate picture of travel in the park system, according to Park Service Director Conrad L. Wirth.

The percentage increases for the various classified areas were as follows: national parks, 3.2; national monuments, 1.8; national historical areas, 18.6; and national parkways, 0.3.

There are nine small areas in the system where no visitation count is made, and the total count does not include the hundreds of areas in and around Washington, D.C. (other than national memorials) that are administered by National Capital Parks.

Personnel Changes in Parks and Forests

Mr. Leo J. Diederich, since 1954 chief of National Park System Planning in the Service's Washington office, has recently been appointed chief of Recreation Resource Planning in the Park Service's San Francisco Regional Office (Region 4) to succeed Mr. George L. Collins, recently retired. A native of Streator, Illinois, Mr. Diederich commenced park work in the 1930's as a landscape foreman for Arkansas State parks. He entered the National Park Service's Washington headquarters office in 1941, and successively was landscape architect, recreation planner, and chief of Land Planning.

Recently announced by the National Forest Service, Department of Agriculture, is the appointment of Mr. Boyd L. Rasmussen, deputy assistant chief in the Forest Service Washington office since April, 1959, as regional forester in charge of the Northern Rocky Mountain Region, with headquarters at Missoula, Montana. A native of Glenns Ferry, Idaho, with many years of national forest experience in various capacities, Mr. Rasmussen replaces retiring Regional Forester Charles L. Tebbe.

Name of Key Largo Preserve Is Changed

The formal dedication of the world's first wholly underseas park occurred December 10, 1960, at Tavernier, in the Florida Keys, when Ross Leffler, then an assistant secretary of the Interior Depart-

ment, presented the Florida State Board of Parks and Historical Monuments with the federally-owned portion of the 75-square-mile preservation—that part lying outside the three-mile statutory limit. (*National Parks Magazine* for October, 1960, carried a full account of the new area and its underwater inhabitants.)

Prior to its formal dedication, the park was known as the Key Largo Coral Reef Preserve. It is now known, however, as the Pennekamp Coral Reef Preserve, for Mr. John Pennekamp, associate editor of the *Miami Herald*, who was instrumental in the creation of the park. The State of Florida is now in process of acquiring land on Key Largo for a museum, parking facilities, and a pier.

C. H. Stoddard Named Head of Review Staff

Mr. Charles H. Stoddard, widely known conservation leader and member of many national conservation organizations, was recently selected to head the Department of the Interior's Technical Review Staff, which provides advisory and staff coordination services to the Secretary on program and policy matters.

Mr. Stoddard, a native of Milwaukee, Wisconsin, has been a resource economist with Resources for the Future, Inc., of Washington, D.C., for the past five years. In his new position he will review the role of the Technical Review Staff and recommend to the Secretary of the Interior changes required to provide the Department with a strengthened staff to assist in resource conservation and development.

Need for Parklands

At a recent conference in Washington, D.C., an informal work group representing the American Institute of Park Executives, National Conference on State Parks, National Park Service, and other park groups, heard Secretary of the Interior Stewart L. Udall emphasize the present need to preserve open spaces for future America. "Every citizen of the United States has a stake in the *Parks For America* plans now being formulated," said the Secretary. (See *Parks For America*, page 17, March magazine.) Secretary Udall added that meeting the park needs of future generations depends on action taken by the present generation.

The work group is exploring ways and means of strengthening park conservation at all levels of government, and of stimulating parkland acquisition while suitable lands are available.

Letters to the Editor

Problem in Nomenclature

Justice Douglas' article "Wallowas" [in *National Parks Magazine* for November, 1960] gave me much pleasure. I have ridden the trails and gone over the region by air, and hope to do so again and again.

However, a correction in the article is in order. The picture on page 5 is not Eagle Cap Mountain but a peak to the south or southeast of Eagle Cap, and about one mile distant. I am enclosing two photographs I have taken that come close to making a panoramic view.

The peak pictured on page 5 has no name so far as I know. [Received with Mr. Stryker's letter were the two photographs appearing below. The photograph at the right is marked "Eagle Cap over Glacier Lake, about 1 mile N or NW of other peak." Ed.]

H. M. STRYKER
Salem, Oregon

● Eagle-eyed reader Stryker has apparently caught both the editor and the United States Forest Service with their peaks transposed. The Forest Service photo (#356470) from which the engraving was made is hopefully marked "Glacier Lake with Eagle Cap Mountain reflected in it."

With the cooperation of both the Forest Service's Washington and Pacific Northwest Region offices, the nomenclature of these two peaks has apparently been straightened out. The following advice was recently received from Mr. J. H. Wood, Assistant Regional Forester of the Pacific Northwest Region, Portland, Oregon:

"The photographs were sent to the

Forest Supervisor, Wallowa-Whitman National Forest, for identification. A member of his staff who was born and raised in Wallowa County (Oregon) and who was at one time forest ranger in the area, made the identification. He says your reader was correct in stating the mountain peak in the photo is not Eagle Cap. The peak shown is known locally as Glacier Peak. It lies approximately one-half mile south of Glacier Lake.

"Eagle Cap is properly identified in your reader's second photo (at right, below) but the lake shown we believe to be Mirror Lake, not part of Glacier Lake."

National Parks Magazine is grateful to both Mr. Stryker and the Forest Service for their interest. Ed.

An Architect's Dream

Congratulations and thanks for publishing the excellent article "Urbanization of the National Parks" by Weldon F. Heald (Jan. 1961). It seems to me that it must have been the visitor center at Dinosaur National Monument that Randall Jarrell had in mind when he wrote:

"A mansion, today, is what it is, not because a millionaire has dreamed of the Alhambra, but because an architect has dreamed of the marriage of Frank Lloyd Wright and a silo."

RAY T. OLESEN, *Architect*
Menlo Park, California

Disagrees with Heald

On several previous occasions I have expressed regret that the zeal of your writers sometimes leads them to make

intemperate and exaggerated statements.

Without questioning Mr. Heald's sincerity, I find it difficult to believe that he could have traveled the new section of road with open eyes and mind and still have written those words. Instead of being straight, the [Tioga] road is characterized by agreeable, sweeping curves. In the rocky portions the cutting of the granite has exposed many interesting patterns of exfoliation which have evoked expressions of approval from many whose concern for Yosemite cannot be less than that of the author.

The statement that the area at Lake Tenaya defaces "one of the most superb examples of glacial polish in the United States" is sheer fantasy. The glacial polish in that area is one of the least impressive examples of this phenomenon in the park itself, let alone the whole United States.

Mr. Heald gives no credit whatsoever to the Park Service for having planned the route so that the motorist can enjoy the splendid mountain scenery which it now reveals. I have driven many visitors over this new section of road, including a number who had been disturbed by the clamor which had been raised against it. I have yet to show it to someone who has not expressed enthusiastic approval. The question of those familiar with the controversy generally has been: "What was all the fuss about?"

On this aspect of Mr. Heald's article, at least, I hope your readers will reserve judgment until they can themselves judge whether the Park Service has succumbed to "the vandalism of improvement."

H. OEHLMANN
Yosemite Park & Curry Co.
Yosemite, California

The panoramic scene below shows Glacier Peak (left) and Eagle Cap (right) in the Wallowa National Forest of Oregon.



Both photos, H. M. Stryker



MY WILDERNESS: The Pacific West. By William O. Douglas. Doubleday & Co. Inc., New York, 1960. 206 pp. Illus. \$4.95

This new outdoor book by Justice William O. Douglas is truly a work of art: in its concise and lucid writing, its colorful descriptions of the tree-clad, flower-filled country the author loves, in its superb decorations by Francis Lee Jacques, and in binding and typography. Subtitled *The Pacific West*, it is the first volume of two, and will be followed next autumn by another, subtitled *East to Katahdin*.

It is not only a work of art, however, but also a work of science, showing a vast and precise knowledge of forests, birds, mammals, fish, and plants, and of the mountains and rivers themselves, in the eleven major regions he discusses, from the Brooks Range in Alaska to the High Sierra in California. These are some of the remaining major wilderness areas of the Pacific Coast in national parks, national forests, wildlife refuges, most of them the scene of a hard battle at the present moment for the protection of the American outdoor environment. Most of them, again, the author possessed for himself when he hiked and camped in them as a boy, winning a robust and permanent good health from dangerous early illness. Now he would have an industrial society repossess itself of the natural human setting here, before too late.

The author transmits miraculously in these pages his own intense delight in wilderness. It is a pleasure to read the book because one shares this experience of great joy. This is nature writing at its best, not in the least sentimental, sharply realistic, set within a broad understanding of the artificial constraints of the modern world.

Despite the understanding, the author can say: "The wilderness area is the norm." Wilderness was the environment from which all life on earth, including mankind, originally sprang. For the biological sciences it is the indispensable control-plot, by reference to which we can best understand life processes in modified areas.

But perhaps even more is suggested: in view of our biological origins, our value judgments must refer to the wilderness

area. Because evaluation is indispensable and fundamental to the social sciences, the protection and restoration of representative wilderness may be an imperative of civilization.

Following this line of thought (the author does not go so far), if wilderness is norm, it must be so for continuous living, not merely for observation and evaluation, nor even for annual vacations; perhaps it is the broad margin of beauty, tranquillity and freedom with which the well-integrated communities of a prosperous future civilization may surround themselves, and space themselves out.

It is no accident that this evangelist of wilderness is one of the great humane liberators of our times. He says: "I always hate to leave the Sierra . . . Only great compulsions, such as Robert Frost wrote about, bring me down: . . . 'But I have promises to keep. And miles to go before I sleep.'"

The old frontier and human freedom were closely related. When the frontier ended, regulation closed in. As a frequently dissenting Justice, as a writer on democratic institutions and foreign policy, concerned with liberty, and as a working conservationist, Mr. Douglas yields to a command which takes him down into the cities and away from his beloved wilderness. But perhaps in the end the two devotions are one: can a free society survive without great spaciousness for human life?—A.W.S.

A Quick Glance at . . .

EXPLORING GLACIERS—WITH A CAMERA. By A. E. Harrison. Sierra Club, Mills Tower, San Francisco, 1960. 71 pages, 60 photographs. Paperbound. \$1.95—The perceptive reader will not let the numerous captivating illustrations in this book deter him from its lessons on how to be a glacier spy. The text tells the how and why of glaciers, but beyond that explains the use of a camera in determining the how and why. The camera can record small changes in snow accumulation, ice thicknesses and shrinkage, for instance, which in turn help tell the story of glacial movement. The varnished photographs—many taken in national parks—successfully relay the magnificence of the route glaciers travel. Also included: glossary,

photographic data, and a stereo pair of aerial photos for 3-D viewing.

OUTDOOR PROGRAM 1961 of the National Capital Parks. Department of the Interior, Washington 25, D.C., 1961. 51 pp. Illus. Free of charge.—Both nature-loving vacationers who are visiting Washington for the fifteenth time and first-time tourists should check this booklet for events in Washington, D.C., parks between April and October. National Capital Parks of the National Park Service offers interpretive programs by historians and naturalists for activities ranging from barge trips up the C & O Canal to walks through the Kenilworth Aquatic Gardens. Write to: Superintendent, National Capital Parks, 1211 Department of the Interior, Washington 25, D.C.

GUIDE TO TUOLUMNE MEADOWS TRAILS: Special Issue of *Yosemite Nature Notes*, Vol. 9, No. 8. By Allan Shields. Yosemite Natural History Association, Inc., Box 545, Yosemite National Park, California. 37 pp. Illus. 60¢.—A Yosemite ranger-naturalist has prepared this guide for the do-it-yourself hiker who may want to supplement the regular program of guided hikes through Tuolumne Meadows. The graded hikes begin with Lembert Dome and Dog Lake, end with Mount Dana. There is a bibliography for those who want to read more about what they see, checklists of birds, plants, and animals of the area, and blank pages for those who may want to augment the checklists on their own.

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THE CONSERVATION DOCKET



Most legislation with which conservationists are concerned is referred to the House and Senate Committees on Interior and Insular Affairs. Bills appropriating money are referred to the respective committees on appropriations. The best manual of information for keeping in touch with Congressmen and various committee members is the Congressional Directory which is presently available at the Government Printing Office, Washington 25, D.C., for \$2.25. It not only tells you who your senators and representatives are, but lists membership of the various Congressional committees and subcommittees, such as the new National Parks Subcommittee of the House, and gives full information on the personnel of the various executive bureaus of the government.

Appropriations. Late in March, President Kennedy asked Congress to increase the Department of the Interior budget for fiscal year 1962 by some forty million dollars. The amendment would provide eleven million dollars to the National Park Service for acquisition of lands in park areas like the new Minute Man Historical Park in Massachusetts; acceleration of construction; initiation of beach erosion control at Cape Hatteras Seashore in North Carolina; completion of the new entrance road to Dinosaur National Monument in Utah and Colorado; and other developments.

The House Appropriations Committee has completed hearings on the Interior budget and has now drawn up an appropriations bill. Senate hearings have not yet been scheduled.

House hearings on the Bureau of Reclamation budget, which is reflected in a separate Public Works appropriations bill, will probably have started by late April. The Kennedy budget revision does not affect the Bureau's estimate of ten million dollars for protection of Rainbow Bridge from waters of Lake Powell formed by Glen Canyon dam in Utah. The preliminary appropriation was deleted from the Bureau budget after last year's hearings.

Bridge Canyon Dam. H.R. 725 (McDonough), H.R. 3991 (Lipscomb). Authorize a dam on the Colorado River in the vicinity of Bridge Canyon, Arizona, upstream from Hoover Dam. Proposed dam would store water to an elevation of 1876 feet, raising river level sufficiently to back water through Grand Canyon National Monument and along eighteen miles of the boundary between the monument and Grand Canyon National Park.

In 1948 the Bureau of Reclamation proposed a similar dam as part of the Central Arizona project. Controversy between the States of Arizona and California prevented Congressional action on the project. At present, the Arizona Power Authority and the City of Los Angeles are battling over applications with the Federal Power Commission for licenses to build dams in the same area. The conflicting applications date back to 1958, in the case of Arizona, and early 1960 for California.

Both of these projects specify a dam in the vicinity of Bridge Canyon, as described above; a dam at Marble Canyon farther upstream; and a silt detention dam on the Little Colorado River which flows by the northeast corner of Wupatki National Monument. Although FPC hearings on these applications have been postponed from month to month, the Marble Canyon phase of the projects will probably be considered on May 2 in Washington.

Apart from the Federal Power Commission, Bureau of Reclamation,

National Park Service, and members of Congress, the Fish and Wildlife Service is giving close scrutiny to developments surrounding a Bridge Canyon dam. The silt detention and lowering of water temperature effected by such a project would change river ecology enough to provide ideal conditions for establishment of a fish hatchery. Several sites along the Colorado are under consideration for the breeding of rainbow trout should plans for hydroelectric projects reach the building stage.

Rainbow Bridge National Park. (S. 1188, Bennett) To establish Rainbow Bridge National Monument as a national park. Amends the Colorado River Storage Project Act which precludes "impairment of the Rainbow Bridge National Monument" by waters of Glen Canyon Dam, to preclude "structural impairment of the Rainbow Bridge in Rainbow Bridge National Park."

Forest Service Hearing on proposed access road into Minam River drainage area, to start at Wallowa Lake State Highway, terminating in Big Burn area, Wallowa National Forest, Oregon. May 23, Sacajawea Hotel, LaGrande, Oregon, 8:30 a.m. For more information write the Forest Supervisor, Baker, Oregon.

Legislative Progress Report Committee Hearings Reported

C & O Canal Park (S. 77, Beall)	x	x
C & O Canal Park (H.R. 4684, Mathias)	x	
Cape Cod Seashore (S. 857, Smith-Saltonstall)	x	x
Cape Cod Seashore (H.R. 989, Keith)	x	x
Oregon Dunes Seashore (S. 992, Neuberger)	x	
Padre Island Seashore (S. 4, Yarbrough)	x	x
Point Reyes Seashore (S. 476, Engle-Kuchel)	x	x
Point Reyes Seashore (S. 543, Miller)	x	x
Rainbow Bridge Park (S. 1188, Bennett)	x	
Salmon River Fish (S. 323, Church-Neuberger)	x	x
Shorelines Study (S. 543, Anderson)	x	x
Wilderness Preservation (S. 174, Anderson)	x	x

Park Service Views

(Continued from page 14)

control by the Secretary of the Interior."

Although we have not been informed officially of any action by the Nevada Fish and Game Commissioners on the proposal, the *Review-Journal* of Las Vegas, Sunday, January 22, states that the Commission "received a new proposal from the National Park Service over the creation of a national park in the Great Basin area of White Pine County. Since the proposition was virtually the same as before, the Commission continued its stand of opposition to the measure."

This letter . . . boils down to the real issue, which is whether or not to invite public participation in certain animal population control programs when this promises to be an effective management tool based on demonstrated needs, and permissible under present law. . . .

Sincerely yours,
CONRAD L. WIRTH, Director
National Park Service

Association's Position

(Continued from page 15)

status. It would be naive in the extreme to assume that if the barriers were dropped in respect to new parks or monuments, they could be retained in the old ones. The November statement of the Trustees is quite explicit in this respect; at the same time it recognizes that in areas of less than full park caliber, such as some of the proposed national seashores, a modified policy may be necessary for a time under unusual circumstances.

A number of the Trustees of this Association are men of distinction in the wildlife management field. They are well-qualified to participate in at least an advisory capacity in the solution of these problems, and I feel sure they would be happy to be of assistance if called upon. The Association itself is anxious to cooperate closely with the Service in well-conceived programs of habitat preservation.

Cordially yours,
ANTHONY WAYNE SMITH, Executive Secretary
National Parks Association



Ralph Anderson, National Park Service

**Boulder relics of the Pleistocene ice
dot the scored and polished granite of
Moraine Dome, Yosemite National Park**

